

E1
cont'd
10 kg/m³;

wherein said thermal-acoustic insulation material is non-galvanic corrosive.

E2
3. (Three Times Amended) A thermal-acoustic insulation material as in claim 1, wherein
said anisotropic pitched-based carbon fibers have an average fiber diameter of from 0.5 μm to 1.0
 μm .

10. (Four Times Amended) A method of manufacturing a thermal-acoustic insulation
material, comprising the steps of:

E3
producing spun fibers having an average fiber diameter less than 2 μm and an average fiber
length of 1 mm to 15 mm by heating and melting anisotropic pitch obtained by polymerizing
condensed polycyclic hydrocarbon, then discharging a melted matter out of a spinning nozzle and
at the same time, blowing a heated gas from/around the spinning nozzle in the same direction to
which the melted matter is discharged;

manufacturing non-galvanic corrosive carbon fibers by infusibilizing spun fibers and
thereafter carbonizing said carbon fibers at not lower than 550°C. but lower than 800°C.;

forming a carbon fiber aggregate by aggregating and compressing said non-galvanic corrosive
carbon fibers to a bulk density of from (3 - b) kg/m³ to (10 - b) kg/m³;

spraying a thermosetting resin solution to said carbon fibers so that the amount of a
thermosetting resin in relation to the amount of the carbon fiber aggregate is made to be b, where b

is an arbitrary number fixed so that the bulk density is positive and the relationship $0.3 \leq b \leq 4$ is satisfied; and

*E3
E4
Cured*
curing the thermosetting resin by heating the carbon fiber aggregate sprayed with the thermosetting resin solution to manufacture a three dimensional structure of carbon fibers wherein said carbon fibers are bonded at contact points thereof, said three-dimensional structure having a bulk density of from 3 kg/m^3 to 10 kg/m^3 .

E1
11. (Amended) A method of manufacturing thermal-acoustic insulation material, comprising the steps of:

producing spun fibers having an average fiber diameter less than $2 \mu\text{m}$ and an average fiber length of 1 mm to 15 mm by heating and melting anisotropic pitch obtained by polymerizing condensed polycyclic hydrocarbon, then discharging a melted matter out of a spinning nozzle and at the same time, blowing a heated gas from around the spinning nozzle in the same direction in which the melted matter is discharged;

manufacturing non-galvanic corrosive carbon fibers by infusibilizing said spun fibers and thereafter carbonizing said spun fibers at not lower than 550°C . but lower than 800°C .;

forming a carbon fiber aggregate having a bulk density less than 1.3 kg/m^3 by aggregating said non-galvanic corrosive carbon fibers;

spraying a thermosetting resin solution to the carbon fiber aggregate; and

curing the thermosetting resin by compressing and heating the carbon fiber aggregate sprayed

with the thermosetting resin solution to bond contact points of said carbon fibers and thereby manufacture a three dimensional structure of carbon fibers having a bulk density of from 3 kg/m³ to 10 kg/m³.

E5 **2** 2. (Amended) A method of manufacturing a thermal-acoustic insulation material as in claim 11, wherein in said step of forming a carbon fiber aggregate, said non-galvanic corrosive carbon fibers are opened by the air and dropped from a height of at least 100 cm or higher onto a plane.

E6 42. (Amended) A method of manufacturing a thermal-acoustic insulation material as in claim 10, a temperature of carbonizing the spun fibers is not lower than 650°C. but lower than 750°C.

E7 **3** 43. (Twice Amended) A method of manufacturing a thermal-acoustic insulation material as in claim 11, wherein a temperature of carbonizing the spun fibers is not lower than 650°C. but lower than 750°C.